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IS 4561-2 (1968): Oil Cans, Part II: Conical Oil Cans [PGD
19: Lubricating Equipments]



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Indian Standard
SPECIFICATION FOR OIL CANS

PART II CONICAL OIL CANS

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Indian Standard

SPECIFICATION FOR OIL CANS

PART II CONICAL OIL CANS

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(Continued on page 2)

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Indian Standard

SPECIFICATION FOR OIL CANS

PART II CONICAL OIL CANS

0. FOREWORD

0.1 This Indian Standard (Part II) was adopted by the Indian Standards Institution on 27 November 1968, after the draft finalized by the Lubricating Equipment Sectional Committee had been approved by the Mechanical Engineering Division Council.

0.2 Conical oil cans are used for lubricating machine parts through oiler holes. These consist of a conical container made from tin-plate with convex bottom and a brass nozzle provided with spring loaded ball pin. In normal position ball end remains pressed against the nozzle hole to prevent leakage of oil when the oil can is not in use.

For use, the nozzle is directed over or into the oiler hole and the bottom is pressed to push the ball end forward to open the nozzle. Simultaneously the oil is pushed out and flows through the nozzle hole into the oiler orifice. This operation is repeated in quick succession till the required lubrication is achieved.

0.3 This standard is being issued in the following five parts:

- Part I Light duty oil cans
- Part II Conical oil cans
- Part III Feeding oil cans
- Part IV Detachable spout oil cans
- Part V Lever type oil cans

0.4 While preparing this standard assistance has been derived from ' Specification No. IND/GS/1121 Cans, oil, lubricating conical ' issued by the Chief Inspectorate of General Stores, Kanpur, Ministry of Defence, Government of India.

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Rules for rounding off numerical values (revised).

1. SCOPE

1.1 This standard (Part II) specifies the requirements for conical oil cans for general purposes.

2. NOMENCLATURE

2.1 For the purpose of this standard, the nomenclature as given in Fig. 1 shall apply.

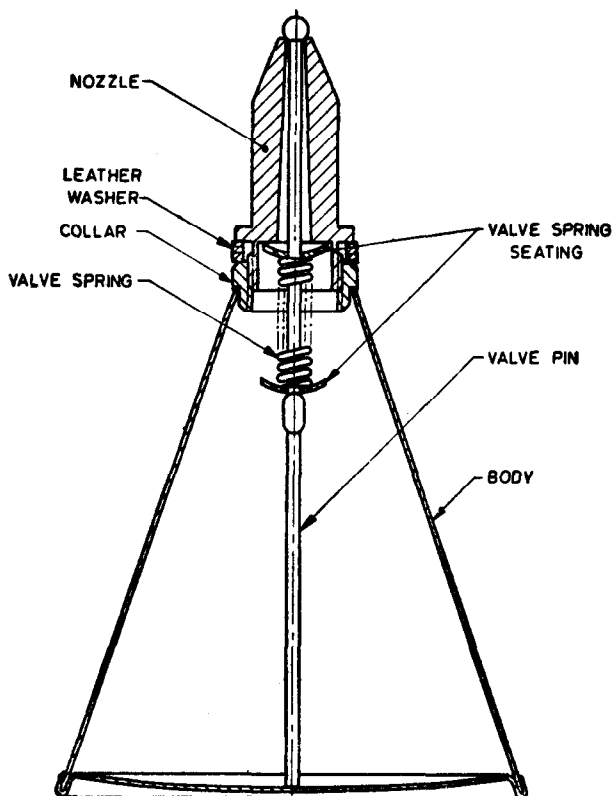


FIG. 1 NOMENCLATURE FOR CONICAL OIL CANS

3. MATERIAL

3.1 The body, bottom and valve spring seating shall be manufactured from tin-plate, Best Cok Grade (BC) conforming to IS : 597-1962*.

*Specification for black plate for tinning, and tinplate (pack rolled) (revised).

3.2 The collar and nozzle shall be manufactured from brass conforming to IS : 319-1967*.

3.3 The valve pin shall be manufactured from any suitable steel conforming to IS : 1570-1961†.

3.4 The valve spring shall be manufactured from hard drawn steel wire conforming to IS : 727-1964‡.

3.5 The washer shall be manufactured from curried cow leather.

4. DIMENSIONS

4.1 The main dimensions of conical oil cans shall be as given in Fig. 2.

5. MANUFACTURE

5.1 The side joints shall be either lock jointed or lapped and then soldered from outside. Bottom shall be pressed and seamed over the body and soldered. The valve pin shall be flattened in the middle to retain the valve spring seating.

6. WORKMANSHIP

6.1 The oil cans shall be free from splits, cracks, dents, burrs and other defects.

6.2 The joints shall be neatly formed and fully pressed. Soldering of all joints shall be neat, continuous and sound.

6.3 The bottom of the oil cans shall be suitably dished to give the necessary lift to the valve.

6.4 The valve pin shall be straight and head of the pin shall properly sit on the nozzle. The flattened portion of the pin shall not be too thin to make the pin weak. The valve spring shall be properly hardened and tempered.

6.5 The washer shall be properly curried, and free from cracks, uneven edges and such other defects which may cause leakage of the oil through the joint.

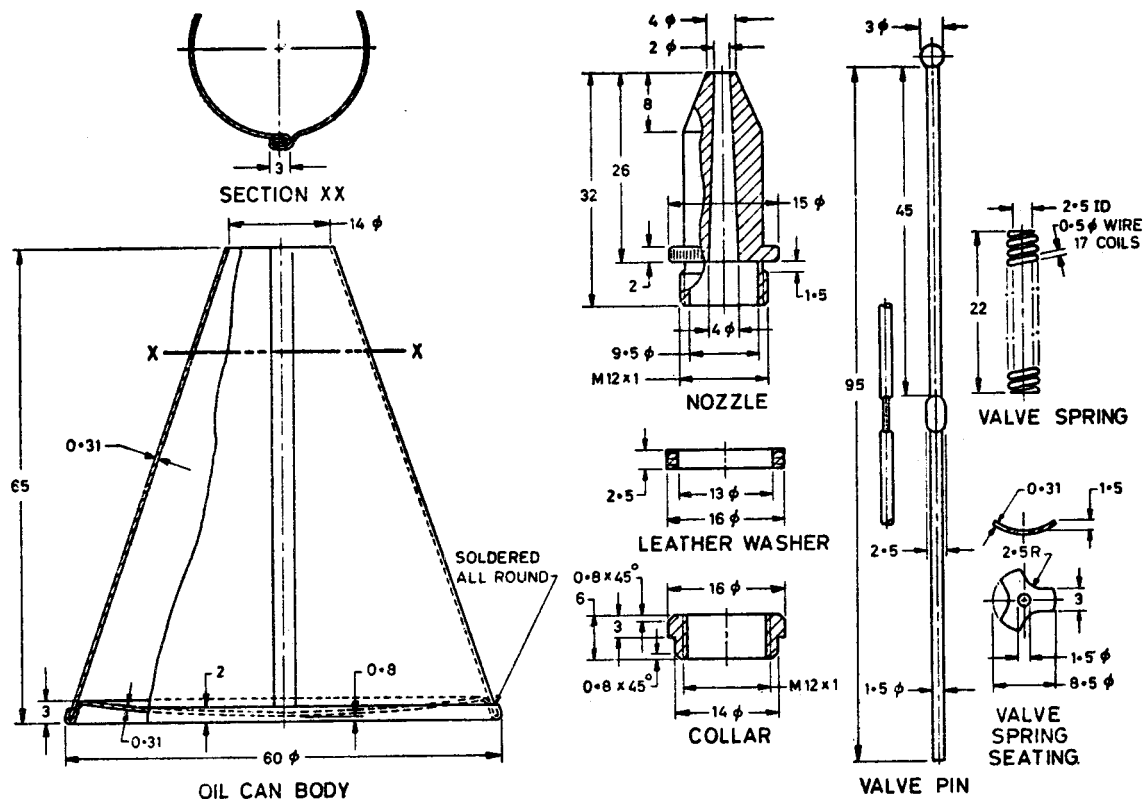
7. MARKING

7.1 The oil cans shall be marked with the manufacturer's name initials or a recognized trade-mark.

*Free cutting brass rods and sections (*revised*). (*Since revised*).

‡Schedules for wrought steels for general engineering purposes.

‡Specification for hard drawn carbon steel wire for springs for general engineering purposes (*revised*). (*Since withdrawn*).



All dimensions in millimetres.

FIG. 2 DIMENSIONS FOR CONICAL OIL CAN PARTS

7.1.1 The oil cans may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

8. PACKING

8.1 Each oil can shall be given a flow coating with any corrosion preventive fluid at room temperature. Fluid conforming to IS : 1153-1957* is one of the suitable fluids for this purpose. The oil can shall be securely wrapped in waxed paper and then packed in good quality waterproof paper packings. The packings shall be securely encased in wooden cases and shall be marked with the manufacturer's name or trade-mark and the description of the contents.

8.1.1 The wooden cases may also be marked with the ISI Certification Mark (see Note under 7.1.1).

9. SAMPLING

9.1 Unless otherwise agreed to between the buyer and the supplier the sampling plan as given in Appendix A shall be followed. For further information reference may be made to IS : 2500 (Part I)-1963†.

10. TESTS

10.1 Leakage Test — The oil cans shall be filled with kerosene oil and cleaned dry from outside. The cleaned oil cans fitted with nozzle, shall be put on a white sheet of paper and shall be allowed to rest for two hours. No oil spot or ring shall be visible on the paper when the can is removed at the end of the test period.

10.2 Discharge Test — The oil can filled with lubricating oil shall be held with its nozzle vertically downwards. The bottom of the oil can shall be pressed and released in quick succession and the oil discharge shall not be less than 12 ml in 100 operations.

10.3 Compression Test

10.3.1 The valve spring shall be kept closed under a load of 2 000 gf so as to have coil to coil contact for 5 minutes and the load released. The spring shall show no sign of permanent set at the end of the test.

*Specification for temporary corrosion preventive, fluid, hard film, solvent deposited.

†Sampling inspection tables : Part I Inspection by attributes and by count of defect.
(Since revised).

10.3.2 The valve spring when completely closed and released 200 times in quick succession shall show no sign of permanent set.

A P P E N D I X A

(*Clause 9.1*)

SCALE OF SAMPLING AND CRITERIA FOR CONFORMITY

A-1. SCALE OF SAMPLING

A-1.1 Lot — In any consignment, all the oil cans manufactured from the same material under essentially similar conditions of production shall be grouped together to constitute a lot.

A-1.2 For ascertaining the conformity of the lot to the requirements of the specification, tests shall be carried out for each lot separately. The number of oil cans to be selected at random for this purpose shall be in accordance with col 1 and 2 of Table 1. To ensure the randomness of selection IS : 4905-1968* shall be used.

TABLE 1 SAMPLE SIZE AND CRITERIA FOR CONFORMITY

NUMBER OF OIL CANS IN THE LOT	SAMPLE SIZE	PERMISSIBLE NUMBER OF DEFECTIVES
<i>N</i>	<i>n</i>	
(1)	(2)	(3)
Up to 50	5	0
51 " 150	8	1
151 " 300	13	1
301 " 500	20	2
501 and above	32	3

A-2. NUMBER OF TESTS AND CRITERIA FOR CONFORMITY

A-2.1 The oil cans selected according to **A-1.2** shall be examined for dimensions (*see 4*), manufacture (*see 5*), workmanship (*see 6*) and tests (*see 10*). Any oil can failing to meet the requirements for any one of the characteristics shall be considered as defective.

A-2.1.1 The lot shall be considered conforming to the requirements of this specification if the number of defective oil cans is less than or equal to the corresponding number given in col 3 of Table 1.

*Methods for random sampling (*under print*). (Since printed).

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